

**BEFORE THE ENERGY COMMISSION
OF THE STATE OF CALIFORNIA**

Supply Side Demand Response

21-DR-01

I. Introduction

The California Independent System Operator Corporation (CAISO) provides comments on the California Energy Commission’s (Energy Commission) *Qualifying Capacity of Supply-Side Demand Response Working Group Draft Report*¹ (Draft Report).

The CAISO greatly appreciates Energy Commission staff’s efforts to facilitate the Supply-Side Demand Response stakeholder process and develop recommendations for the California Public Utilities Commission (CPUC) on adopting new demand response qualifying capacity (QC) methodologies for 2023 and beyond. The CAISO looks forward to continued collaboration with the Energy Commission, its staff, and stakeholders to fulfill the CPUC’s request to examine new demand response capacity counting methodologies.

II. Discussion

A. The CAISO Strongly Supports the Energy Commission’s Recommendation for the CPUC to direct investor owned utilities to show demand response portfolios on supply plans.

The Energy Commission recommends the CPUC “[d]irect [IOUs] to move ... their demand response portfolios onto supply plans.”² The CAISO strongly supports the Energy Commission’s recommendation and continues to emphasize the importance of moving credited demand response capacity to supply plans.

In August 2021, utility demand response programs accounted for about 1,400 MW of capacity—or 80% of total demand response counted towards CPUC system resource adequacy requirements³ Although investor owned utilities (IOUs) bid demand response

¹ Flynn, Tom and Lyon, Erik. 2022. *Qualifying Capacity of Supply-Side Demand Response Working Group Report*. California Energy Commission. Publication Number: CEC-200-2022-001-CMD. .

² *Id.*, Page 31.

³ California ISO Department of Market Monitoring, Demand Response Issues and Performance. January 12, 2022, p. 7. <http://www.caiso.com/Documents/Demand-Response-Issues-Performance-Report-Jan-12-2022.pdf>

programs as supply in the CAISO market, they do not show them on resource adequacy supply plans. As a result, unlike all other resource adequacy resources, this demand response capacity is not subject to must-offer-obligations, substitute capacity obligations, or the CAISO's resource adequacy availability incentive mechanism (RAAIM). As noted by the CAISO's Department of Market Monitoring, in 2021 on days the CAISO issued flex alerts or system warnings, CPUC-jurisdictional credited demand response availability fell short of resource adequacy credits by an average of 450 MW, or 34 percent.⁴ Including IOU demand response capacity on supply plans enables the CAISO to equitably apply the same incentive mechanisms it applies to other resource adequacy resources.

B. The CAISO Supports the Load Impact Protocol Informed ELCC Approach as the Preferred IOU Demand Response Counting Methodology for Resource Adequacy Year 2023.

The Energy Commission recommends the CPUC adopt three qualifying capacity (QC) methodology options for demand response providers (DRPs) to use in resource adequacy year 2023. These options include the existing Load Impact Protocol (LIP) process, the CAISO and Pacific Gas & Electric (PG&E) proposed LIP Profile informed ELCC methodology, and the California Energy + Demand Management Council (CEDMC) PJM/NYISO approach.

The CAISO appreciates the Energy Commission's recommendation to adopt the LIP Profile informed ELCC methodology as an interim counting methodology for resource adequacy year 2023. The CAISO agrees with the Energy Commission's assessment that the

LIP-informed ELCC method more accurately accounts for a contribution to reliability than the status quo. This method will allow the [CAISO] to grant an exemption to the resource adequacy availability incentive mechanism for investor-owned utility demand response resources and for the CPUC to direct investor-owned utilities to move their demand response resources onto supply plans.⁵

⁴ Compared to total CPUC-jurisdictional demand response resource adequacy credits including the 15 percent planning reserve margin adder. California ISO Department of Market Monitoring. Demand Response Issues and Performance. January 12, 2022, p. 8. <http://www.caiso.com/Documents/Demand-Response-Issues-Performance-Report-Jan-12-2022.pdf>

⁵ Flynn, Tom and Lyon, Erik. 2022. *Qualifying Capacity of Supply-Side Demand Response Working Group Report*. California Energy Commission. Publication Number: CEC-200-2022-001-CMD. p. 30.

The LIP Profile informed ELCC approach represents accepted industry leading practices, and it effectively captures use-limitations, limited energy, and the variable nature of most demand response programs to establish QC values. It also assesses demand response resources' interactive effects with other resources and meets the CAISO's principles to justify a RAIM exemption.⁶ This approach would allow IOUs to stop crediting demand response and, instead, show these resources on supply plans.

The CAISO originally recommended the LIP Profile informed ELCC as an interim QC methodology for both IOU and third-party demand response providers based on values calculated by CPUC Energy Division staff. However, ELCC studies are computationally intensive and CPUC Energy Division indicated that including third-party demand response programs in the ELCC studies would be infeasible for 2023. The CAISO acknowledges this is a shortcoming of the joint CAISO and PG&E proposal. As a result, the Energy Commission may wish to consider an alternative interim approach as described below in subsection D until the joint CAISO and PG&E proposal may be implemented for both IOU and third-party demand response providers.

C. The CAISO Is Concerned with Adopting the PJM/NYISO Approach Without First Determining Whether the Penalties Would Provide Adequate Incentives for DRPs to Reasonably Estimate QC Values and Clearly Identifying Who Would Administer Those Penalties.

The Energy Commission recommends the CPUC “[a]llow optionality between LIP-informed ELCC, the incentive-based [PJM/NYISO] approach, and the LIP-based status quo for both third-party and investor-owned utility demand response providers.”⁷ The CAISO continues to have concerns with the status quo LIP approach and the PJM/NYISO proposal.

Both approaches do not consider use-limitations, limited energy, or the variable nature of most demand response programs in establishing QC values. Furthermore, the

⁶ The CAISO is willing to pursue a RAIM exemption for demand response resources with QC values established under a methodology that 1) assesses the resource's contribution to reliability across all hours of the year or seasons as a variable-output resource, and 2) assesses the resource's interactive effects with other similarly-situated resources. See CAISO, Board Memo - Decision on RAIM Exemption Option for Variable-Output Demand Response, July 7, 2021: <http://www.caiso.com/Documents/Decision-RAAIM-Exemption-Option-Variable-Demand-ResponseResources-Memo-July-2021.pdf>

⁷ Flynn, Tom and Lyon, Erik. 2022. *Qualifying Capacity of Supply-Side Demand Response Working Group Report*. California Energy Commission. Publication Number: CEC-200-2022-001-CMD, p. 30.

status quo LIP approach can over-count demand response resources' actual reliability contribution, and has resulted in shortfalls between credited capacity values and actual resource availability in the CAISO market on high load days.⁸

The PJM/NYISO approach proposed by CEDMC allows a DRP to calculate its claimed QC, with limited advance validation to assess the expected capability of the underlying demand response programs. This approach relies on a performance penalty structure to ensure DRPs do not overstate QC values and ensure contracted capacity is delivered. It is premature to adopt CEDMC's proposal at this time because the approach aims to discipline QC values through performance penalties, which stakeholders have not had sufficient opportunity to discuss and vet. The details of this proposal were not available for review until January 24, the same day the Energy Commission's report was published for review. As a result, the CAISO disagrees with the report's finding that the CEDMC proposal has been "vetted extensively with the working group members."⁹

Based on details CEDMC submitted on January 24, the CAISO is concerned the PJM/NYISO proposed penalty structure may not provide adequate incentives to ensure reasonable QC values. The PJM/NYISO approach uses three measures to assess performance: a full dispatch, a test event, or a must offer obligation. Performance for full dispatch and test events would be based on performance in the CAISO market. Absent full dispatch or test events, performance would be measured by comparing resource bids to the CAISO must offer obligation. Penalties would only be incurred if performance falls below 75 percent. Financial penalties are also capped at a demand response provider's collateral requirements posted with the Energy Division at a rate of \$2,500/MW-year, based on a resource's contracted net qualifying capacity (NQC). Potential penalties under the CEDMC proposal are extremely low compared to recent years' average system resource adequacy prices.¹⁰

Furthermore, this proposal relies on the CPUC to administer penalties and may present significant challenges for implementation by 2023. For these reasons, the CAISO

⁸ CAISO Department of Market Monitoring, Demand Response Issues and Performance. January 12, 2022, p.8. <http://www.caiso.com/Documents/Demand-Response-Issues-Performance-Report-Jan-12-2022.pdf>

⁹ Flynn, Tom and Lyon, Erik. 2022. Qualifying Capacity of Supply-Side Demand Response Working Group Report. California Energy Commission. Publication Number: CEC-200-2022- 001-CMD. Page. 26

¹⁰ For comparison, average system capacity prices reported by the CPUC were \$6.47/kW-month or \$77,640/MW-year in 2021. See: 2020 Resource Adequacy Report, CPUC, December 2021, p. 24.

recommends the Energy Commission condition its recommendation to adopt the PJM/NYISO approach for 2023 subject to resolution of these issues.

D. The Energy Commission Should Offer CLECA's Proposal as a Potential Backup QC Methodology for 2023 Until CPUC Energy Division Staff Can Calculate both IOU and Third-Party ELCC Values.

The California Large Energy Consumers Association (CLECA) proposes the CPUC determine demand response QC values by weighting hourly load impact values based on program availability by the hourly Loss of Load Expectation (LOLE) values for summer months. The status quo LIP process estimates the load reduction capability for demand response across a five-hour event window from 4-9 pm and uses a simple average of estimated load impacts across this window to derive a single monthly capacity value. CLECA's proposal would weight load impacts used to derive QC values higher, in hours with higher LOLE. CLECA's approach appears to have merit and may be an improvement over the current LIP and the PJM/NYISO approach because LOLE weighting better captures a demand response program's estimated capability in more critical hours.

The CAISO recommends the Energy Commission offer CLECA's proposal as a potential backup interim QC methodology until the CPUC Energy Division staff can calculate LIP Profile informed ELCC values for both IOU and third-party demand response.

Conclusion

The CAISO appreciates the opportunity to provide comments on the California Energy Commission's Draft Report.

Date: February 4, 2021